

CD209b (E-20): sc-25221

BACKGROUND

Antigen-presenting cells are localized in essentially every tissue, where they operate at the interface of innate and acquired immunity by capturing pathogens and presenting pathogen-derived peptides to T cells. Dendritic cells capture antigens or viruses in peripheral tissue and transport them to lymphoid organs, an event that induces cellular T cell responses. The mouse CD209 family of cell adhesion receptors consists of CD209a (also known as DC-SIGN), CD209b, CD209c, CD209d, CD209e, CD209f and CD209g, all of which function to mediate the endocytosis and subsequent degradation of pathogens within lysosomal compartments. There are two human CD209 proteins, designated DC-SIGN and DC-SIGNR, which function in a similar manner to the mouse proteins.

REFERENCES

1. Engering, A., et al. 2002. The dendritic cell-specific adhesion receptor DC-SIGN internalizes antigen for presentation to T cells. *J. Immunol.* 168: 2118-2126.
2. Geijtenbeek, T.B., et al. 2002. Marginal zone macrophages express a murine homologue of DC-SIGN that captures blood-borne antigens *in vivo*. *Blood* 100: 2908-2916.
3. Moris, A., et al. 2004. DC-SIGN promotes exogenous MHC-I-restricted HIV-1 antigen presentation. *Blood* 103: 2648-2654.
4. Weber, K.S., et al. 2004. Sialylation of ICAM-2 on platelets impairs adhesion of leukocytes via LFA-1 and DC-SIGN. *Inflammation* 28: 177-188.
5. de la Rosa, G., et al. 2005. Regulated recruitment of DC-SIGN to cell-cell contact regions during zymosan-induced human dendritic cell aggregation. *J. Leukoc. Biol.* 77: 699-709.
6. Groot, F., et al. 2005. Lactoferrin prevents dendritic cell-mediated human immunodeficiency virus type 1 transmission by blocking the DC-SIGN-gp120 interaction. *J. Virol.* 79: 3009-3015.

CHROMOSOMAL LOCATION

Genetic locus: Cd209b (mouse) mapping to 8 A1.1.

SOURCE

CD209b (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of CD209b of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-25221 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

CD209b (E-20) is recommended for detection of CD209b of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CD209b siRNA (m): sc-42858, CD209b shRNA Plasmid (m): sc-42858-SH and CD209b shRNA (m) Lentiviral Particles: sc-42858-V.

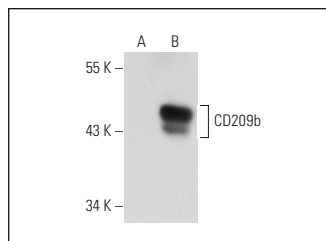
Molecular Weight of CD209b: 50 kDa.

Positive Controls: CD209b (m): 293 Lysate: sc-178374 or c4 whole cell lysate: sc-364186.

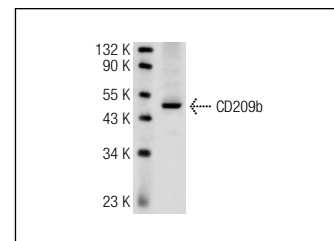
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CD209b (E-20): sc-25221. Western blot analysis of CD209b expression in non-transfected: sc-110760 (A) and mouse CD209b transfected: sc-178374 (B) 293 whole cell lysates.



CD209b (E-20): sc-25221. Western blot analysis of CD209b expression in c4 whole cell lysate.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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Try **CD209b (ER-TR9): sc-73642**, our highly recommended monoclonal alternative to CD209b (E-20).